

# EXCITING CONDUCTORS IDENTIFIED FROM AIRBORNE ELECTROMAGNETIC SURVEY AT BOOLALOO

- Three new discrete bedrock conductors identified at Boolaloo which are in the range of possible responses expected for base metal mineralisation.
- Two of the conductors are within areas of laterally extensive bedrock alteration identified from the previously reported hyperspectral survey.
- Potential strike extension of the Erny Bore Prospect which has returned rock chips up to 8.06 g/t Au highlighted by conductor at depth on the host structure.
- Targets will be drilled as part of the Boolaloo RC program scheduled for Q3 this year.

Kingfisher Mining Limited (ASX:KFM) ("Kingfisher" or the "Company") is pleased to provide an update of its on-going exploration at its 100% owned Boolaloo Project in the Ashburton Basin of Western Australia.

Data from the helicopter-borne Versatile Time Domain Electromagnetic (VTEM<sup>TM</sup> Max) geophysical survey at Boolaloo which is currently considered to be the Industry leading electromagnetic system, has been received by the Company and reviewed in conjunction with the Company's geophysics consultant, Mira Geoscience Asia Pacific Pty Ltd (Mira).

Three discrete late-time bedrock conductors have been identified in the area covered by the survey (Figure 1). The conductors are present across all of the electromagnetic channels; early, mid and late times. Two of the newly identified conductors are in the area covered by the hyperspectral survey and are associated with previously identified laterally extensive alteration of the country rocks (see ASX announcement 17 February 2021). The strong conductor (Figure 1, B) appears in a faulted closure of a large-scale fold; this geological location is considered to be favourable for mineralisation.

Significantly, one of the strong conductors lies approximately 100m along strike from Erny Bore. The Erny Bore Prospect appears as a series of shears and quartz veins and outcrops over a strike length of 150m. The prospect has been defined by historic rocks chip samples which include 8.06, 2.10, 1.81 and 1.21 g/t Au<sup>1</sup>. The historic rock chips, together with the strong conductor and interpreted preliminary VTEM<sup>TM</sup> Max survey results suggest a potential target zone of over 1km for Erny Bore.

Kingfisher's Executive Director and CEO James Farrell commented: "The Boolaloo airborne electromagnetic survey has resulted in the successful identification of exciting new discrete bedrock conductors. The conductors are within the range of response expected for copper and other base metal mineralisation and highlight the potential for the discovery of a deposit in this emerging copper province.

The Company is now prioritising drilling of the newly identified targets as part of the Boolaloo RC program scheduled for Q3 this year".

#### **Survey Details**

The VTEM<sup>TM</sup> Max survey was flown by UTS Geophysics Pty Ltd using the industry leading time domain electromagnetic system. The survey covered more than 20km of strike of the Company's target geological unit and structures. The survey included more than 900 flight line kilometres and covered an area of 165km<sup>2</sup>.



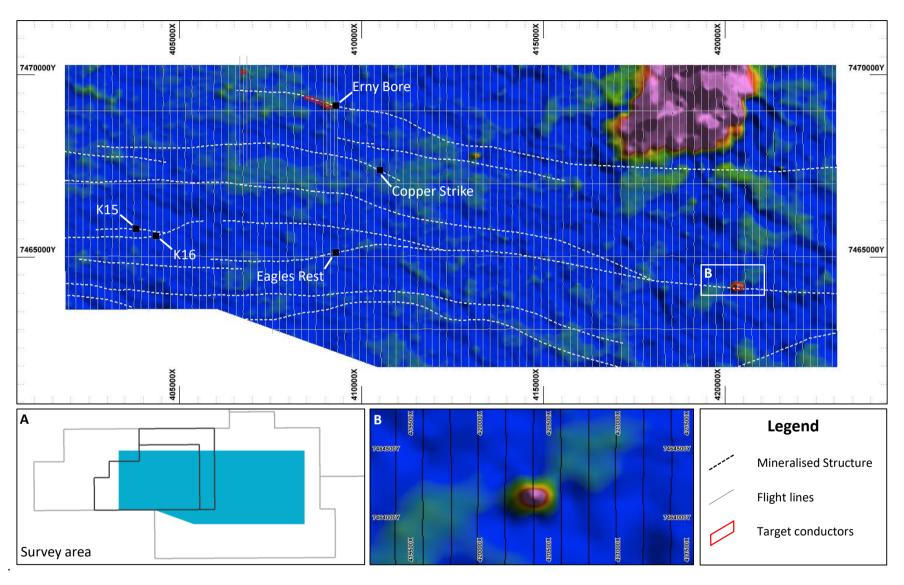


Figure 1: Boolaloo preliminary airborne electromagnetic survey results showing newly identified late-time conductors (channel 40).



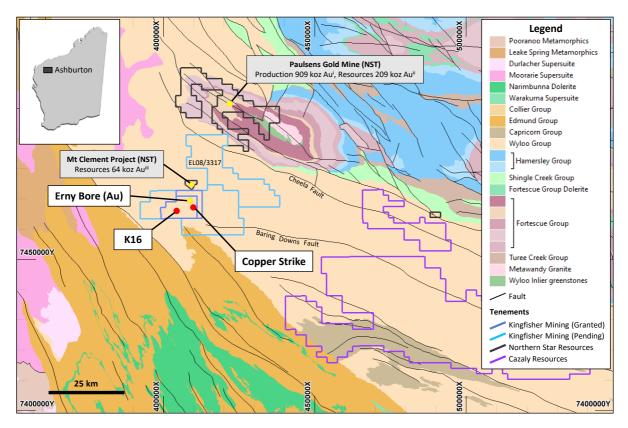
#### **Boolaloo Project**

The Boolaloo copper-gold and base metal project is located approximately 160km west of Paraburdoo and 35km southwest of the Paulsen's gold mine in the Ashburton region of Western Australia (Figure 3). The Company has pegged exploration licences over the potential strike extents of the interpreted mineralised structures, giving a significant strategic holding in an emerging province and tenure which now covers more than 30km of strike of the interpreted mineralised structures.

Past exploration has established the potential for the discovery of copper mineralisation at the project, with previous reverse circulation (RC) drilling returning very encouraging results which include:

- 4m @ 1.06% Cu & 1.40 g/t Au from 109m, including 1m @ 1.41% Cu & 2.70 g/t Au from 110m (MIRC002)<sup>2</sup>;
- 3m @ 1.83% Cu & 1.12 g/t Au from 96m, including 1m @ 3.14% Cu & 1.38 g/t Au from 96m (MIRC004) 2;
- 2m @ 1.44% Cu & 1.36 g/t Au from 137m, including 1m @ 2.28% Cu & 2.28 g/t Au from 138m (MIRC009)<sup>2</sup>;
- 3m @ 3.05% Cu & 0.57 g/t Au from 63m, including 2m @ 3.90% Cu & 0.77 g/t Au from 63m (MIRC013)<sup>1</sup>; and
- 2m @ 3.81% Cu & 0.62 g/t Au from 62m (MIRC027)<sup>3</sup>.

Past exploration has also established significant mineralisation strike lengths at K15 and K16, with the K16 mineralised zone being intersected over a strike length of 1.5km.



**Figure 2:** Location of the Boolaloo Project in the Ashburton Mineral Field showing the 1:2,500,000 geology map of Western Australia. Selected tenements of other companies active in the Ashburton Basin are also shown. Refer to the previous announcements section of this release for detailed information on the past production<sup>i</sup> and resources<sup>ii</sup> of Paulsens Gold Mine and Mt Clement Project<sup>iii</sup>.



This announcement has been authorised by the Board of Directors of the Company.

#### Ends

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#### **About Kingfisher Mining Limited**

Kingfisher Mining Limited (ASX:KFM) is a mineral exploration company committed to increasing shareholder wealth through the acquisition, exploration and development of mineral resource projects throughout Western Australia. The Company's tenements and tenement applications cover 1,375km² in the underexplored Ashburton and Gascoyne Mineral Fields.

The Company has secured significant landholdings across the interpreted extensions to its advanced copper-gold exploration targets giving it more than 30km of strike across the Boolaloo Project target geology in the Ashburton Basin and more than 50km of strike across the target geological unit that covers the Kingfisher and Mick Well Projects in the Gascoyne region.

To learn more please visit: www.kingfishermining.com.au

#### **Previous ASX Announcements**

- <sup>1</sup> Kingfisher Mining Limited Prospectus, 9 November 2020 and WAMEX Reports a079570 and a076055.
- <sup>2</sup> ASX Announcement 'Boolaloo Drill Results Confirm Copper-Gold Potential'. Jackson Gold Limited (ASX:JAK), 8 May 2007.
- <sup>3</sup> ASX Announcement 'Exploration Update Argentina and Australia'. Jackson Gold Limited (ASX:JAK), 27 August 2008.

#### **Information Sources for Figure 2**

- <sup>1</sup> Paulsens Gold Mine past production: Northern Star Paulsens Gold Operations Fact Sheet dated July 2018: https://www.nsrltd.com/wp-content/uploads/2018/08/NSR-Paulsens-Operations-Fact-Sheet-July-2018.pdf
- Paulsens Gold Mine resources: ASX Announcement "Production set to increase 30% over next two years and costs to fall 10%" released 13 August 2020. https://www.nsrltd.com/wp-content/uploads/2020/08/Resources-and-Reserves-Production-and-Cost-Guidance-Update-ex-KCGM-13-08-2020.pdf
- Mt Clement resources: Artemis Resources Limited Annual Report to Shareholders for year ended 30 June 2019.

#### **Forward-Looking Statements**

This announcement may contain forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or



uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

#### **Competent Persons Statements**

The information in this report that relates to Exploration Results is based on information compiled by Mr James Farrell, a geologist and Executive Director / CEO employed by Kingfisher Mining Limited. Mr Farrell is a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralisation and type of deposit under consideration and to the activity that is being reported on to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Farrell consents to the inclusion in the report of the matters in the form and context in which it appears.



## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The VTEM™ Max survey was flown by UTS Geophysics Pty Ltd.</li> <li>The survey included 921 line km.</li> <li>Nominal flight line spacings were 200m, with infill lines at 100m spacings in areas of interest identified during the survey.</li> <li>The nominal flight height was approximately 80m, with the loop at 35m.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	No new drilling results are included in this report.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No new drilling results are included in this report.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	No new drilling results are included in this report.



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The VTEM<sup>TM</sup> Max system is innovative airborne EM system with a low base frequency (25Hz) and high-spatial resolution of two to three metres.</li> <li>Data processing was undertaken during the survey by UTS Geophysics Pty Ltd and by the Company's geophysics consultant, Mira Geoscience Asia Pacific Pty Ltd.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	The VTEM <sup>TM</sup> Max system an industry-leading high-powered airborne EM system.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Independent verification of the data was completed each day by Mira Geoscience Asia Pacific Pty Ltd.</li> <li>No issues were identified with the data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> </ul>	<ul> <li>Flight paths were logged with a Novatel GPS receiver, enabling the helicopter position to be recorded in three dimensions with ±5% altitude accuracy.</li> <li>The flight paths were supplied in the UTM coordinate system</li> </ul>



Criteria	JORC	Code explanation	Со	mmentary
	• Q	uality and adequacy of topographic control.		(MGA94 Zone 50)
Data spacing and distribution	• W of O	ata spacing for reporting of Exploration Results.  Thether the data spacing and distribution is sufficient to establish the degree geological and grade continuity appropriate for the Mineral Resource and re Reserve estimation procedure(s) and classifications applied.  Thether sample compositing has been applied.	•	Nominal flight line spacings were 200m, with infill lines at 100m spacings in areas of interest identified during the survey. The nominal flight height was approximately 80m, with the loop at 35m.  Flight lines were generally perpendicular to the strike of the target geology.
Orientation of data in relation to geological structure	sti • If m	Thether the orientation of sampling achieves unbiased sampling of possible ructures and the extent to which this is known, considering the deposit type. the relationship between the drilling orientation and the orientation of key ineralised structures is considered to have introduced a sampling bias, this would be assessed and reported if material.	•	Flight lines were generally perpendicular to the strike of the target geology.
Sample security	• Th	ne measures taken to ensure sample security.	•	Digital data was transferred using secured file transfer sites.  No physical samples were collected.
Audits or reviews	• Th	ne results of any audits or reviews of sampling techniques and data.	•	Independent data verification was completed daily during the survey by Mira Geoscience Asia Pacific

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Boolaloo copper-gold and base metal project is located approximately 160km west of Paraburdoo and 35km southwest of the Paulsen's gold mine in the Ashburton region of Western Australia.</li> <li>The project includes two granted Exploration Licences, E08/2945 and E08/3067 as well as three Exploration Licence applications, E08/3246, E08/3247 and E08/3317.</li> <li>The tenements are controlled by Kingfisher Mining Ltd.</li> <li>The tenements lie within Native Title Determined Areas of the Thudgarri People, combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli People and the Jurruru People.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>All the tenements are in good standing with no known impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Historic exploration work in the area was dominantly undertaken by Jackson Gold Ltd between 2006 and 2011.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Boolaloo area is prospective for sediment-hosted and shear- associated Cu, Cu-Au and Au mineralisation.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of exploration results including a tabulation of the following information all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that information is not Material and this exclusion does not detract from understanding of the report, the Competent Person should clearly explushy this is the case.</li> </ul>	for O of the the
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging technique maximum and/or minimum grade truncations (eg cutting of high grad and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high graderesults and longer lengths of low grade results, the procedure used for suaggregation should be stated and some typical examples of suaggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values sho be clearly stated.</li> </ul>	es) ade uch uch
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle known, its nature should be reported.</li> </ul>	



Criteria	JC	DRC Code explanation	Со	ommentary
widths and intercept lengths	•	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').		
Diagrams	•	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	•	A map showing the VTEM <sup>TM</sup> Max survey data has been included in the report along with documentation.
Balanced reporting	•	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	•	All of the geophysical survey results are included in this report.
Other substantive exploration data	•	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	•	All of the geophysical survey results are included in this report. All historic exploration results were previously reported by Jackson Gold Limited and subsequently by Kingfisher.
Further work	•	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	•	The company has planned follow-up mapping and rock chip sampling as well as RC drilling to test priority targets.